

## **SMA LEADER NOTES 06-14**

Command Sergeants Major,

As with any piece of combat equipment of significant distribution, the Army Combat Uniform has made a distinctive mark on our Soldiers. As I travel the Army I speak to Soldiers about the uniform and how it went from idea to reality in record time. I also assure them that this uniform was designed by Soldiers for Soldiers - a uniform designed for combat and designed to be worn under body armor. I'd like to use this edition of my Leaders Book Notes to discuss the complete history of the uniform.

The Army Combat Uniform began as a project to develop a more usable, ergonomic and comfortable uniform for our forces in the Stryker Brigade. This project began in January of 2003 and involved soldiers from 3/2 INF (1<sup>st</sup> SBCT) and 1/25 INF (2<sup>nd</sup> SBCT) located at Fort Lewis, Washington. At that time we had identified to PEO Soldier that we needed a more usable 'fighting uniform' that would compliment the rest of our worn equipment such as body armor, helmets, eyewear and special mission equipment. We realized very quickly that both the BDU and DCU uniforms were very difficult to fight from because of the way they were designed and built. Some of the identified shortcomings were:

- The pockets are unusable under body armor.
- The cargo pocket can only be accessed when standing or kneeling, but not while sitting and equipment would fall out while in contact.
- The collar provided no protection to the neck while wearing body armor.
- The buttons would break off, become snagged on equipment or create a wear point under body armor.
- The blouse was too form fitting and did not provide freedom of movement when reaching, carrying or climbing.
- The adjusting buckles on the trouser were uncomfortable and created wear points on the body and they were unreliable.
- There were not enough special equipment pockets.
- There was no flexibility in the wearing of patches and marking devices other than sewing.
- Identification of Friend or Foe tabs (IFF) and glint tape were not permanently affixed to all uniforms. Fratricide has been a problem for leaders for many years.

With these thoughts in mind we took a group of NCOs and sat down with the design engineers and set about to create a better combat uniform. PEO Soldier looked at uniforms from all services, uniforms we had used in the past, uniforms from other forces around the world and uniforms within the special operations command. From these uniforms they took what we believed were the best features and built the first prototype.

The uniforms were given to three infantry squads for a rotation through the National Training Center. Uniform specialists watched the squads perform each mission and solicited feedback from the squads on how to improve the uniforms. At the end of the rotation the team returned to the lab with their comments and built a second prototype. Those uniforms were given to three infantry squads for their upcoming rotation through the Joint Readiness Training Center, where PEO Soldier once again watched and solicited feedback as to how they could make the uniform better. Once again after the rotation, the team went back to the lab and built the final prototype for what they believed could be a large scale trial, a 10,000 unit issue to the 1<sup>st</sup> Stryker Brigade Combat Team (SBCT) for their deployment to Iraq. Each Soldier was issued two uniforms in a desert camouflage pattern, moisture wicking t-shirts, a wider webbed belt, and both the hot weather combat boot and the temperate weather combat boot.

In January and February of 2004 PEO Soldier looked at the uniforms in Iraq to assess the durability, functionality, and laundering performance in a combat environment. Master Sgt. retired Jeff Myhre, who is an OIF 1 and Stryker Brigade veteran, was one of the leaders of this group. He and his team found almost universal acceptance for the uniform that was provided to the individual Soldier and the Maneuver Commander with a uniform with many more options for carrying and utilizing equipment and for individual recognition on the battlefield. During my first visit as Sergeant Major of the Army to Iraq in May of 2004, their biggest problem seemed to be safeguarding the uniforms from theft during laundering, which reflected how sought after and popular the uniform had become with Soldiers in other units.

After returning from Iraq, PEO Soldier incorporated suggested improvements into a final design and began a universal camouflage assessment of the uniform. The camouflage assessment was conducted at the National Training Center, Fort Irwin, California, the Joint Readiness Training Center, Fort Polk, Louisiana and the Yakima Training Center, Fort Lewis, Washington. Varying types of camouflage were tested during these assessments. The assessments proved that the large 'swatch' pattern in the BDU and DCU uniforms are tough to conceal in the desert, urban and woodland environments. Testing showed that the pixilated pattern was the most concealable pattern. The movement of large swatches of color is immediately picked up by the eye and is further compounded in the darker colors such as the black in the BDU uniform. This is a lesson our Special Operations Forces community had known for many years. I personally remember as far back as Desert Storm seeing Special Operations Forces Soldiers in pixel-patterned uniforms with many of the modifications Soldiers had recommended in this new uniform.

We knew we could field a pixilated camouflage pattern for a particular region of the world during a specific season that would be superior to the BDU or DCU. But we asked the scientists at Natick Laboratories if it was possible to have a universal camouflage pattern for all deployed areas.

So as part of our ongoing development, the scientists at Natick Labs worked on a universal camouflage pattern. Color determination and shade were tested in the lab to find the best possible camouflage using the naked eye and night vision goggles.

Natick Laboratories developed four camouflage patterns that best suited our Soldiers in the environments where they would fight. The pixilated pattern selected performed very well in forested and desert environments. But the uniform performed especially well in urban areas both day and night where we have many Soldiers conducting operations daily. As an Army we have always conducted our major combat operations under the cover of darkness, our motto has always been, 'we own the night'. The uniform was so effective at night in all environments and difficult to see with night vision goggles, glint tape was permanently added to the uniform.

During the evaluation and testing of the pattern and colors for the ACU, PEO Soldier took a hard look at the tan boot color. Evaluators noticed that the darker color suede boots, like the boots the Marine Corps wears, became very dark after only limited wear. So we decided to slightly darken the standard 1991 era desert boot. As Soldiers break them in, the boots match the desert sand color in the ACU.

To help make the trousers fit more snugly around the waist, a drawstring was added to replace the adjustable buckles. Soldiers wearing BDUs have complained about the buckles digging into their skin while wearing the LBV and the rucksack. Uniform developers found that the drawstring provided comfort and ease of use when wearing an outer tactical vest. The ACU was designed for the shirt to be worn outside the trousers or tucked inside when wearing body armor. The drawstring serves to keep the shirt inside the trousers without wearing the belt tight around the waist.

Soldiers serving in the Stryker Brigade recommended adding additional padding for protection of the elbows and knees while working in and around armored vehicles. Developers incorporated pockets in the ACU for the use of foam or gel elbow and knee pads. These pads reduced injury to Soldiers operating inside armored vehicles. The uniform is also designed to use the external strap-on elbow and knee pads issued with all the RFI equipment during ground combat operations.

For decades, Soldiers who spent significant amounts of time in the field or deployed regularly were required to maintain two sets of uniforms. One set of uniforms for the field without sewn on badges and removable rank and unit patches so the enemy would not know their identity and unit capabilities. These Soldiers were then required to have another 'pretty' set of uniforms to wear in garrison. We surveyed Soldiers and senior leaders from Civil Affairs, Psychological Operations, Special Forces, Rangers, Military Intelligence, Military Police, and other career management fields. These Soldiers asked, 'is this a garrison uniform or a combat uniform'? Of course, the answer is that the ACU is a combat uniform.

Recognizing the esprit-de-corps and pride that comes with distinctive badges and wanting to keep the best features of the old uniforms to match with the capabilities of the ACU, pin-on badges allowed the greatest flexibility. Currently, commanders at the lowest levels decide what the uniform of the day is in accordance with mission requirements. A good rule of thumb for leaders is if you're in an environment where your beret is worn, for example in garrison or for special occasions like promotions or a reenlistment, then the pin-on badges would be appropriate. Consider the uniform with the beret and pin-on badges as our Class B uniform. When you take off the beret and put on your patrol cap for work details, deployment, field training, or as directed by the commander, the pin-on badges come off. The uniform is a combat uniform.

The ACU in its final design was presented to the CSA and approved for fielding on June 14, 2004. By August of 2005, the 48<sup>th</sup> Infantry Brigade, Georgia National Guard was the first unit in the Army to be issued the uniform as the unit prepared to deploy to OIF. Never before in our history has a uniform gone from concept to full-scale production and distribution in such a short period of time.

Since February of 2005, the ACU has been issued to more than 170,000 Soldiers totaling more than 680,000 uniforms in support of deployments to OIF and OEF. The ACU has received overwhelming positive comments from Soldiers for its functionality and ease of use. We learned quite a bit from the 48<sup>th</sup> Infantry Brigade about the uniform's durability and inherent issues in quality. As a result, we incorporated their feedback and corrected several deficiencies. The ACU has undergone incremental changes since its inception which include a re-designed crotch to strengthen it's stitching and durability, a more robust trouser drawstring, positioning of the calf pocket to ensure uniform location on all size trousers, the strengthening of hook and loop attachment points to provide greater overall life and durability, and the change to foliage green patches and pixilated name, rank and U.S. ARMY. Upgrades in the future include an additional pen pocket on the inside flap of the blouse.

The ACU became standard issue for Soldiers in Initial Entry Training in October of 2005. The ACU arrived in Clothing Sales in January of 2006 and is selling in high volumes to Soldiers currently stationed on Military Installations around the world. PEO Soldier has worked closely with Clothing Sales managers to ensure a complete understanding of the ACU fitting criteria to laundering tips and techniques.

Enlisted Soldiers receive an annual clothing allowance. This allowance is based on costs to replace individual uniform items depending on expected wear life. Part of this allowance provides for the purchase of two ACU uniforms and one pair of boots each year. This is why we set the mandatory possession date for two uniforms and one pair of boots at May of 2007, and four uniforms and two pairs of boots by May of 2008. The clothing allowance provides funds for Soldiers to replace half of their four required combat uniforms each year. Additionally, the clothing allowance allows for the replacement of the service dress uniform every four years. The allowance also covers the replacement of underwear, socks, and PT uniform items. Changes in cost of our clothing items results in a change in our clothing allowance.

Many units were issued green name tapes and rank insignia prior to deployment because there was not enough time to have the digital camouflage patches made. Both green and digital camouflage name tapes and ranks are authorized for wear on the ACU. PEO Soldier is currently issuing the digital camouflage name tapes and ranks through the Rapid Fielding Initiative to deploying units. Additionally, clothing sales stores throughout the Army are providing digital insignia for ACUs. As the supply of digital camouflage name tapes and rank increase, we will eliminate the older green version. Clothing sales stores are working to stock the new foliage green patches. As the inventory of all these items increases, we will eliminate the older green version. The goal is to complete this transition by May 2007 which is the mandatory possession date for the first two uniforms and one pair of boots.

PEO Soldier has set-up a website at <https://peosoldier.army.mil/acu.asp> that expands on the timeline of the ACU as well as the latest detailed, official information on the wear, care and authorizations to the uniform. I encourage leaders at every level to stay up to date on the uniform by visiting the site.

Currently under foot is the Army's new Extreme Cold Wet Weather Clothing System, or ECWWCS. Our current ECWWCS system includes the polypropylene long underwear, black fleece jacket, and the gortex jacket. The new ECWWCS system currently worn by three battalions of the 10<sup>th</sup> Mountain Division in Afghanistan will complete final design tests before going into full production and issue.

This new ECWWCS system is modular, a 12-piece, seven layer system, designed to work in concert with the ACU. New underwear materials and color will match our new uniforms. The black fleece will transition to the foliage green color used in the ACU pattern. A lightweight, water resistant patrol jacket in the ACU camouflage pattern, silk weight underwear, a grid fleece top and bottom, a wind shirt, an extreme cold weather layer and a rain patrol jacket with pants are all part of the system. All the outer layers will incorporate hook and loop fasteners for name and rank placement to include the outer tactical vest (body armor). The ECWWCS is built around the functionality that we have in the ACU, with fabrics that are moisture wicking and pockets that are user friendly.

One last note on the way ahead – as we move forward with improvements to the ACU, we're producing a much more durable uniform. Soldiers in the field have come back to us with several suggested improvements such as elastic cargo pockets, a flap to cover the pen pocket, improved internal knee and elbow pads, hook and loop fasteners on the boonie hat for a name tape, and a possible re-positioning of the calf pocket to allow Soldiers to fully utilize the pocket. All those improvements are being looked at and developed by PEO Soldier. Tests on uniform colorfastness are also ongoing to correct any perceived fading of the ACU.

We are constantly looking for ways to improve the comfort, relevancy and durability of all of the uniforms in our inventory. I want to thank each and every American Soldier for their continued service. You continue to live the Soldiers Creed and the Warrior Ethos. You wear your new Army Combat Uniform well and with pride. The American people notice and continue to support you as you defend liberty and freedom around the world. Hooah.

SMA Kenneth Preston